

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10589102
Filing Date	2007-10-05
First Named Inventor	Tae-Yoon Kim
Art Unit	1632
Examiner Name	Marcia Stephens Noble
Attorney Docket Number	BARUN-13046

U.S. PATENTS**Remove**

Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	4458066		1984-07-03	Carauthers et al.	whole document
	2	4650675		1987-03-17	Borel et al.	whole document
	3	4469863		1984-09-04	Ts'o et al.	whole document
	4	5023243		1991-06-11	Tullis	whole document

If you wish to add additional U.S. Patent citation information please click the Add button.

Add**U.S. PATENT APPLICATION PUBLICATIONS****Remove**

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

Add**FOREIGN PATENT DOCUMENTS****Remove**

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ² ^j	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10589102
Filing Date	2007-10-05
First Named Inventor	Tae-Yoon Kim
Art Unit	1632
Examiner Name	Marcia Stephens Noble
Attorney Docket Number	BARUN-13046

1	2004/078772	WO		2004-09-16	Doo Sik Kim	whole document	<input type="checkbox"/>
2	2001/093905	WO		2001-12-13	Cistem Biotechnologies	whole document	<input type="checkbox"/>
3	1998/029124	WO		1998-07-09	ISIS Pharmaceuticals	whole document	<input type="checkbox"/>
4	0092574	EP		1992-04-29	Molecular Biosystems, Inc.	whole document	<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
	1	GILKESON, GS, et al., "Induction of Cross-Reactive Anti-dsDNA Antibodies in Preautoimmune NZB/NZW Mice by Immunization with Bacterial DNA," J. Clin. Invest., 1995, 95:1398-1402	<input type="checkbox"/>
	2	KRIEG, AM, et al., "CpG motifs in bacterial DNA trigger direct B-cell activation," Nature 374:546-549, 1995	<input type="checkbox"/>
	3	AKDIS, CA. "Immune regulation in atopic dermatitis , " Curr Opin Immunol., 2000 12:641-646	<input type="checkbox"/>
	4	KRIEG, AM. "CpG MOTIFS IN BACTERIAL DNA AND THEIR IMMUNE EFFECTS." Annual Review Immunol., 2002, 20: 709-760	<input type="checkbox"/>
	5	WARREN, TL, et al., " APC Stimulated by CpG Oligodeoxynucleotide Enhance Activation of MHC Class I-Restricted T Cells1," J. Immunol., 2000, 165:6244-6251	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10589102
Filing Date	2007-10-05
First Named Inventor	Tae-Yoon Kim
Art Unit	1632
Examiner Name	Marcia Stephens Noble
Attorney Docket Number	BARUN-13046

6	KWON, H.J. et al., "NF-KB-dependenlt regulation of tumor necrosis factor-CL gene expression by CpG oligodeoxynucleotides," <i>Biochem. Biophys. Res. Commun.</i> , 2003, 311:129-138	<input type="checkbox"/>
7	LEE, KW. et al., "CG sequence- and phosphorothioate backbone modification-dependent activation of the NF-KB-responsive gene expression by CpG-oligodeoxynucleotides in human RPMI 8226 B cells," <i>Mol. Immunol.</i> , 2004, 41:955-964,	<input type="checkbox"/>
8	DENG GM et al., "The features of arthritis induced by CpG motifs in bacterial DNA," <i>Arthritis & Rheumatism</i> , 2000, 43 (2):356-364	<input type="checkbox"/>
9	MASAYUKI MIYATA et al., "UNMETHYLATED OLIGO-DNA CONTAINING CpG MOTIFS AGGRAVATES COLLAGEN-INDUCED ARTHRITIS IN MICE," <i>Arthritis & Rheumatism</i> , 43(11):2578-2582, 2000	<input type="checkbox"/>
10	TANAKA, T. et al., "An Antisense Oligonucleotide Complementary to a Sequence in Iy2b Increases 3'2b Germine Transcripts, Stimulates B Cell DNA Synthesis, and Inhibits Immunoglobulin Secretion," <i>J Exp. Med.</i> 1992, 75:597-607	<input type="checkbox"/>
11	HANS-JOACHIM Anders et al., "Activation of toll-like receptor-9 induces progression of renal disease in MRL-Fas(pr) mice," <i>The FASEB Journal express article</i> 10. 1096/fj. 03-0646fje. published online January 20, 2004	<input type="checkbox"/>
12	TSUNODA I. et al., "Exacerbation of viral and autoimmune animal models for multiple sclerosis by bacterial DNA.," <i>Brain Pathol.</i> 1999, 9(3):481-493	<input type="checkbox"/>
13	BACHMAIER K. et al., "Chlamydia Infections and Heart Disease Linked Through Antigenic Mimicry," <i>Science</i> , 1999, 283(5406):1335-1339	<input type="checkbox"/>
14	D' ANDREA A et al., "Production of natural killer cell stimulatory factor (interleukin 12) by peripheral blood mononuclear cells," <i>J. Exp. Med.</i> , 1992, 176:1387	<input type="checkbox"/>
15	SATO T et al., "Immunostimulatory DNA Sequences Necessary for Effective Intradermal Gene Immunization," <i>Science</i> 1996, 273:352-354	<input type="checkbox"/>
16	SHU U et al., "Activated T cells induce interleukin-12 production by monocytes via CD40-CD40 ligand interaction," <i>Eur. J. Immunol.</i> , 1995, 25:1125-1128	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10589102
Filing Date	2007-10-05
First Named Inventor	Tae-Yoon Kim
Art Unit	1632
Examiner Name	Marcia Stephens Noble
Attorney Docket Number	BARUN-13046

17	CELLA M et al., "Ligation of CD40 on dendritic cells triggers production of high levels of interleukin-12 and enhances T cell stimulatory capacity: T-T help via APC activation," <i>J. Exp. Med.</i> , 1996, 184:747-752	<input type="checkbox"/>
18	CHAN SH et al., "Induction of interferon gamma production by natural killer cell stimulatory factor: characterization of the responder cells and synergy with other inducers," <i>J. Exp. Med.</i> , 1991, 173:869-879	<input type="checkbox"/>
19	NEUMANN C., et al., "Comparative analysis of the frequency of house dust mite specific and nonspecific Th1 and Th2 cells in skin lesions and peripheral blood of patients with atopic dermatitis," <i>J Mol Med.</i> , 74: 401-406, 1996	<input type="checkbox"/>
20	AIBA S., et al., "Alteration in the production of IL-10 and IL-12 and aberrant expression of CD23, CD83 and CD86 by monocytes or monocyte-derived dendritic cells from atopic dermatitis patients," <i>Exp Dermatol.</i> , 2003, 12: 86-95	<input type="checkbox"/>
21	NILSSON C., et al., "Low numbers of interleukin-12-producing cord blood mononuclear cells and immunoglobulin E sensitization in early childhood," <i>Clin Exp Allergy</i> , 2004, 34: 373-380	<input type="checkbox"/>
22	KATAKURA, T., et al., "A combination therapy using IL-12 and soluble IL-4 receptor on herpes simplex virus Type 1 infection in a human-SCID chimera model of thermal injury," <i>Clin. Immunol.</i> 2002, 105:363-370	<input type="checkbox"/>
23	HENGGE U. R., et al., "Topical immunomodulators for the treatment of external genital warts, cutaneous warts and molluscum contagiosum," <i>Br. J. Dermatol.</i> , 2003, 149:15-19	<input type="checkbox"/>
24	ARANYI I., et al., "Enhancement of the innate and cellular immune response in patients with genital warts treated with topical imiquimod cream 5%," <i>Antiviral Res.</i> , 1999, 43: 55-63	<input type="checkbox"/>
25	ROOK AH., et al "The potential therapeutic role of interleukin-12 in cutaneous T-cell lymphoma," <i>Ann. N. Y. Acad. Sci.</i> , 1996, 795:310-318	<input type="checkbox"/>
26	GOLLOB, JA., et al., "Phase I Trial of Concurrent Twice-Weekly Recombinant Human Interleukin-12 Plus Low-Dose IL-2 in Patients With Melanoma or Renal Cell Carcinoma," <i>J. Clin. Oncol.</i> , 2003, 21:2564-2573	<input type="checkbox"/>
27	TRINCHIERI G., et al., "Interleukin-12: a proinflammatory cytokine with immunoregulatory functions that bridge innate resistance and antigen-specific adaptive immunity," <i>Annu Rev Immunol.</i> , 1995, 13: 251-276	<input type="checkbox"/>

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	10589102
Filing Date	2007-10-05
First Named Inventor	Tae-Yoon Kim
Art Unit	1632
Examiner Name	Marcia Stephens Noble
Attorney Docket Number	BARUN-13046

28	KREPLER C., et al., "CpG oligonucleotides elicit antitumor responses in a human melanoma NOD/SCID xenotransplantation model," J Invest Dermatol., 2004, 122: 387-391	<input type="checkbox"/>
29	CHRISTIAN V., et al. "Overproduction of Th2-specific chemokines in NC/Nga mice exhibiting atopic dermatitis-like lesions," J Clin Invest 104:1907-1105, 1999	<input type="checkbox"/>
30	MATSUO, R., et al., "Interleukin-12 protects thermally injured mice from herpes simplex virus type 1 infection," 1996, 59:623-630	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.